

Service Manual

74 PM32/01B/02B/05B/07B

Stereo amplifier

This service manual explains them by extracting the different specifications from those of the model PM-32, based on the model PM-30. For both electrical and mechanical information on the after-sales service which is not stated, all information is described in the model PM-30 service manual (Code-number is 4822 725 50912). The dispatch of the parts for after-sales service has to be referred to this service manual, with first priority.

For this reason, please use this service manual with referring the model PM-30 service manual, without fail.

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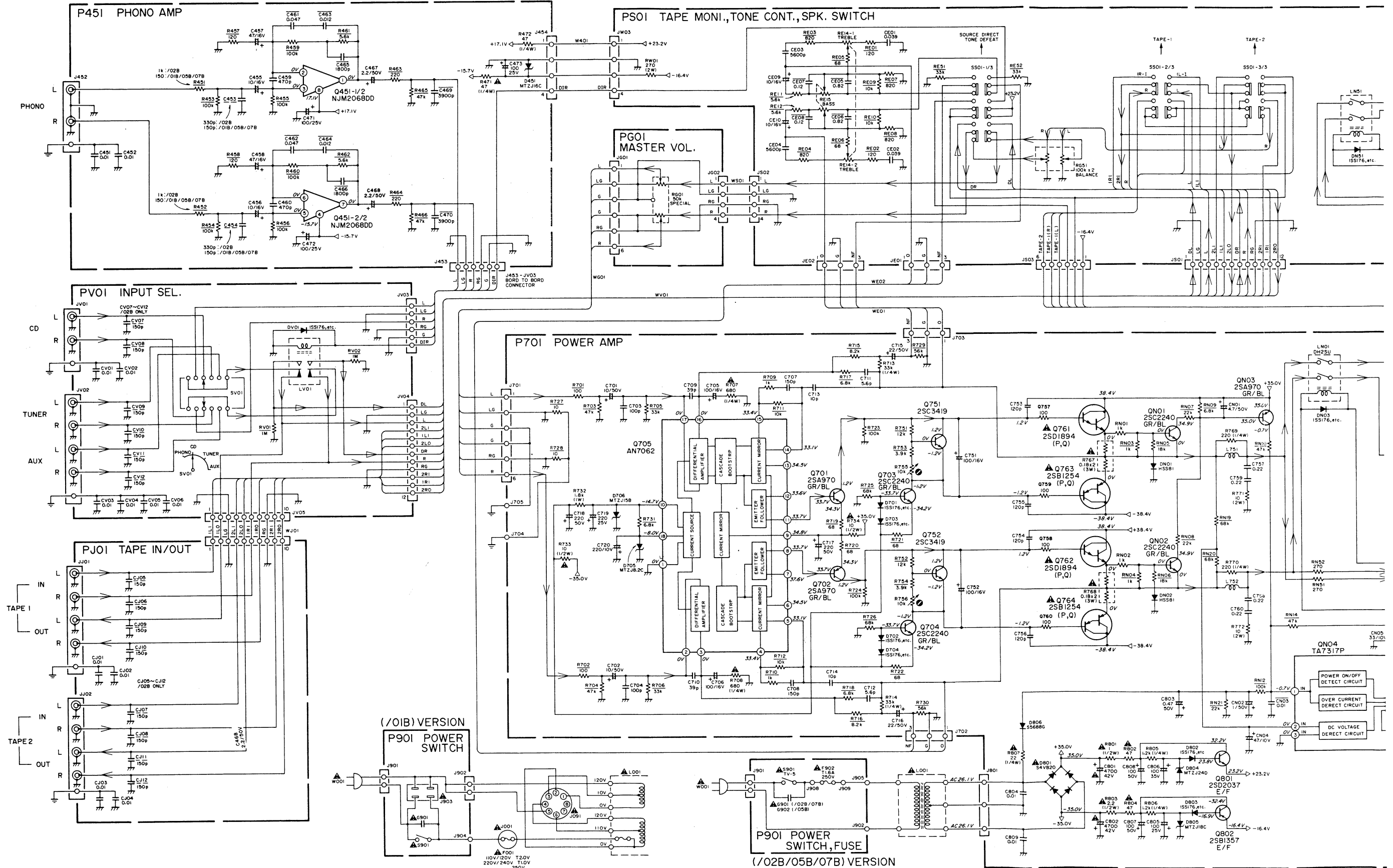
model PM-32

First issue: 1992
4822 725 50997

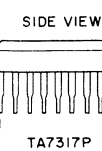
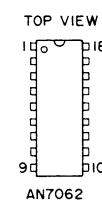
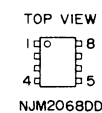
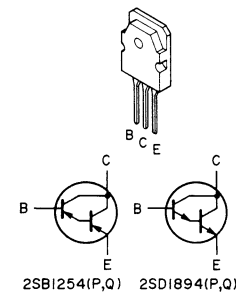
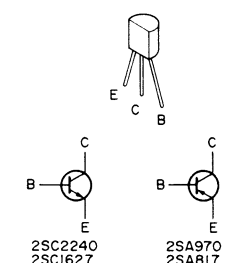
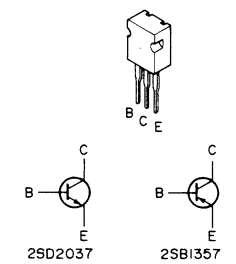
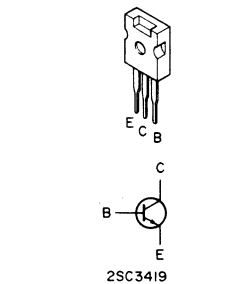
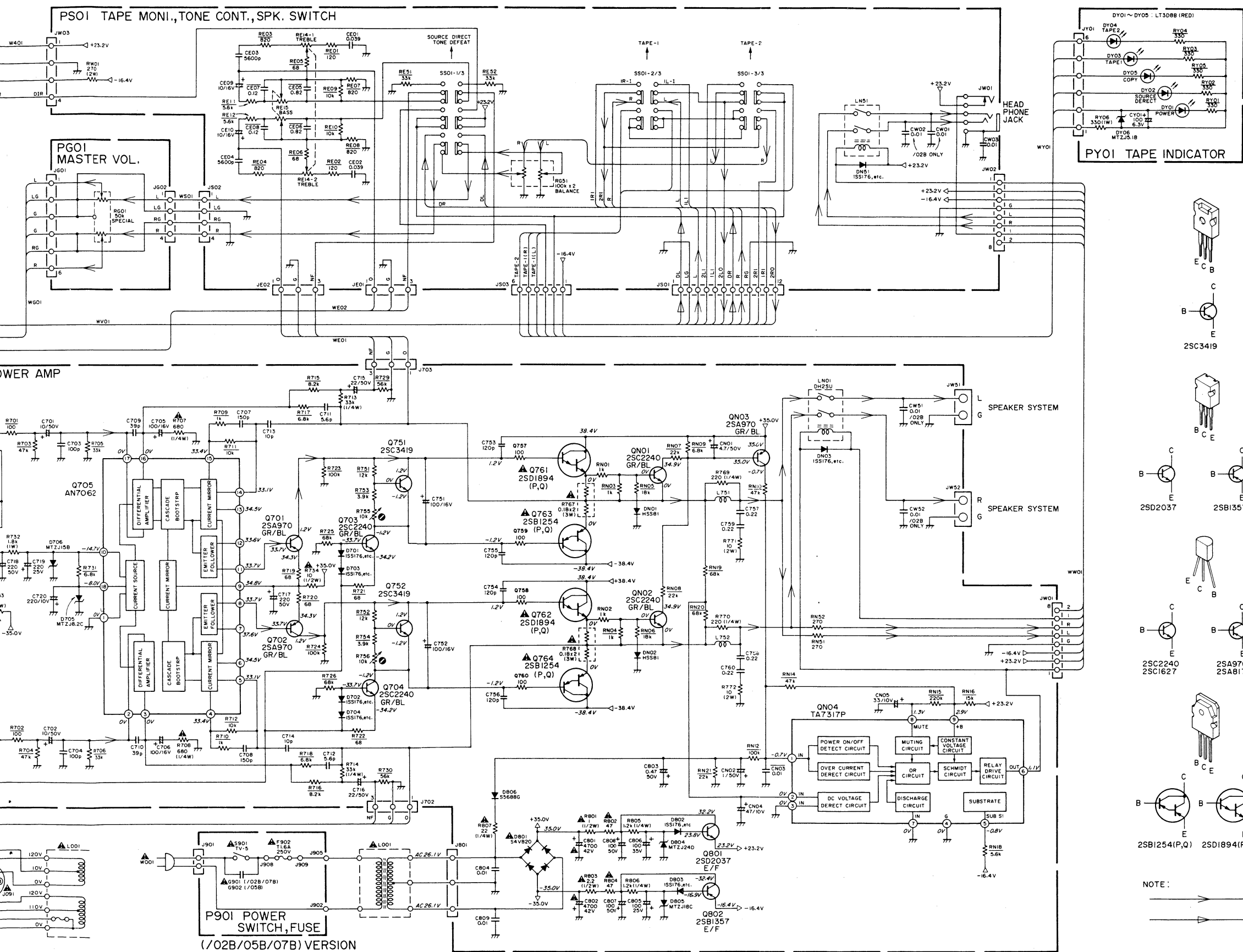
Different Parts between model PM-30 and PM-32

| PAGE | REF. DESIG. | PM-30 | PM-32 | DESCRIPTION |
|------|-------------|----------------|----------------|--|
| 14 | 001B | 4822 425 40176 | 4822 425 40184 | Front Panel Assembly Button, Power |
| | 013B | 4822 410 60395 | 4822 410 60902 | |
| | 001F | 4822 466 92914 | — | Leg User Manual |
| | 005G | 4822 462 41477 | 4822 462 41932 | |
| | 001T | 4822 736 20695 | 4822 736 21419 | Power Transformer /02B Film 100pF $\pm 5\%$ Film 100pF $\pm 5\%$ |
| | ▲ L001 | 4822 146 21554 | 4822 146 21671 | |
| | C703 | 4822 121 51517 | 4822 121 50562 | |
| | C704 | 4822 121 51517 | 4822 121 50562 | |
| 16 | CW03 | — | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% Relay, MR62-24SR |
| | LV01 | 4822 280 20195 | 4822 280 20501 | |
| 17 | RY06 | 4822 111 50474 | 4822 053 10331 | Resistor 330 Ω $\pm 5\%$ 1W |
| | C467 | 4822 124 90358 | 4822 124 90357 | Elect 2.2 μ F 50V |
| | C468 | 4822 124 90358 | 4822 124 90357 | Elect 2.2 μ F 50V |
| | R472 | 4822 111 30006 | 4822 052 10499 | Resistor 47 Ω $\pm 5\%$ 1/4W |
| | C701 | 4822 124 22571 | 4822 124 23082 | Elect 10 μ F 50V |
| | C702 | 4822 124 22571 | 4822 124 23082 | Elect 10 μ F 50V |
| | C707 | 4822 121 51037 | 4822 121 50416 | Film 150pF $\pm 5\%$ |
| | C708 | 4822 121 51037 | 4822 121 50416 | Film 150pF $\pm 5\%$ |
| | C753 | — | — | — |
| | C756 | 4822 121 43126 | 4822 121 50548 | Film 120pF $\pm 5\%$ |
| 18 | RN01 | 4822 111 91257 | 4822 052 10102 | Resistor 1K Ω $\pm 5\%$ 1/6W |
| | RN02 | 4822 111 91257 | 4822 052 10102 | Resistor 1K Ω $\pm 5\%$ 1/6W |
| | R713 | 4822 273 10214 | 4822 050 23303 | Resistor 33K Ω $\pm 5\%$ 1/4W |
| | R714 | 4822 273 10214 | 4822 050 23303 | Resistor 33K Ω $\pm 5\%$ 1/4W |
| | R732 | 4822 116 60343 | 4822 053 10182 | Resistor 1.8K Ω $\pm 5\%$ 1W |
| | R755 | 4822 100 11373 | 4822 100 11351 | 10K Ω , Trimming |
| | R756 | 4822 100 11373 | 4822 100 11351 | 10K Ω , Trimming |
| | R757 | 4822 111 91285 | — | — |
| | R758 | 4822 111 91285 | — | — |
| | R759 | 4822 111 91285 | — | — |
| | R760 | 4822 111 91285 | — | — |
| | R763 | 4822 116 60267 | — | — |
| | R764 | 4822 116 60267 | — | — |
| | R765 | 4822 111 91424 | — | — |
| | R766 | 4822 111 91424 | — | — |
| | R769 | 4822 116 52849 | 4822 050 22201 | Resistor 220 Ω $\pm 5\%$ 1/4W |
| | R770 | 4822 116 52849 | 4822 050 22201 | Resistor 220 Ω $\pm 5\%$ 1/4W |
| | R771 | 4822 111 90726 | 4822 053 11109 | Resistor 10 Ω $\pm 5\%$ 2W |
| | R772 | 4822 111 90726 | 4822 053 11109 | Resistor 10 Ω $\pm 5\%$ 2W |
| | R773 | 4822 111 91424 | — | — |
| | R774 | 4822 111 91424 | — | — |

SCHEMATIC DIAGRAM



NOTE ON SAFETY:
 Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ▲. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.



NOTE :
 → NORMAL SIGNAL LINE
 → SOURCE DIRECT SIGNAL LINE

| PAGE | REF. DESIG. | PM-30 | PM-32 | DESCRIPTION |
|------|-------------|----------------|----------------|-----------------------------|
| 18 | Q751 | 4822 130 60526 | 4822 130 60117 | Transistor 2SC3419Y |
| | Q752 | 4822 130 60526 | 4822 130 60117 | Transistor 2SC3419Y |
| | Q757 | 4822 130 60696 | 4822 052 10101 | Resistor 100Ω ±5% 1/6W |
| | Q758 | 4822 130 60696 | 4822 052 10101 | Resistor 100Ω ±5% 1/6W |
| | Q759 | 4822 130 69693 | 4822 052 10101 | Resistor 100Ω ±5% 1/6W |
| 19 | Q760 | 4822 130 69693 | 4822 052 10101 | Resistor 100Ω ±5% 1/6W |
| | ▲Q761 | 4822 130 60697 | 4822 130 63044 | Transistor 2SD1894(P, Q) |
| | ▲Q762 | 4822 130 60697 | 4822 130 63044 | Transistor 2SD1894(P, Q) |
| | ▲Q763 | 4822 130 60694 | 4822 130 63043 | Transistor 2SB1254(P, Q) |
| | ▲Q764 | 4822 130 60694 | 4822 130 63043 | Transistor 2SB1254(P, Q) |
| | JW52 | 4822 290 81373 | 4822 290 81374 | Terminal, Speaker Black-Red |
| | L761 | 4822 157 51739 | 4822 157 63085 | Coil, Speaker |
| | L762 | 4822 157 51739 | 4822 157 63085 | Coil, Speaker |

IDLING CURRENT ADJUSTMENT

- (1) Before switching the power ON, set the Master Volume control to the minimum position and the Balance and Tone controls to the center positions. Also set semi-fixed resistors R755 (L CH) and R756 (R CH) on PCB P701 to the center positions.
- (2) Each of the cement resistors R767 (L CH) and R768 (R CH) on the PCB P701 is provided with three test points. Connect a digital voltmeter, set for the DC voltage input, to the test points at the two extremities of the three test points of R767 or R768.
- (3) After the setup above, switch the power ON and adjust semi-fixed resistor R755 (L CH) or R756 (R CH) on PCB P701 according to the digital voltmeter reading. The target setting value is 7.2mV (20mA) for both the L CH and R CH.

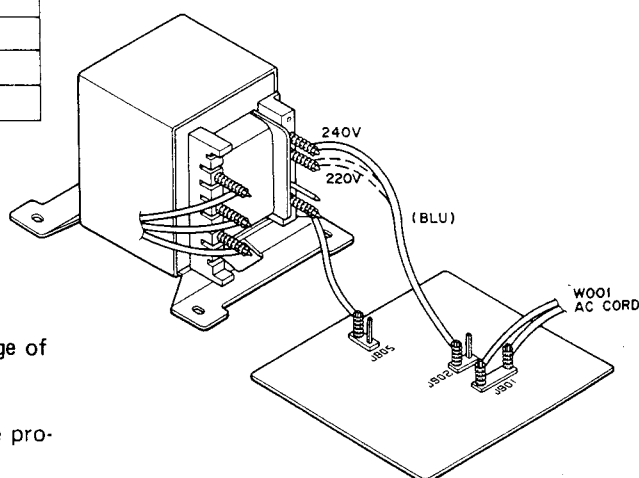
Please refer to the table below.

| Elapsed time after power ON | Idling current setting value |
|-----------------------------|------------------------------|
| 30 sec. — 1 min. | 7.4mV |
| 1 min. — 2 min. | 7.2mV |
| 2 min. — 4 min. | 7.2mV |
| More than 4 min. | 7.2mV |

HOW TO CHANGE THE SUPPLY VOLTAGE (/05B/07B Versions)

With the /05B/07B Versions, the rated supply voltage of 240V can be changed to 220V.

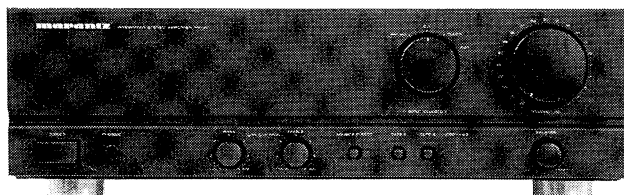
Refer to the right-hand diagram for the voltage change procedure.



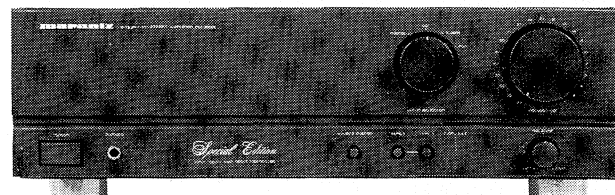
Service Manual

**74 PM30/01B/02B/05B/07B
10B/12B/15B/17B**

Stereo amplifier



PM-30



PM-30SE

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marantz®

model PM-30/PM-30SE

First issue: 1990

4822 725 50912

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.

Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Alexanderstrasse 1
2000 Hamburg
Germany

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLV
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box. 58088
Newville 21114
South Africa

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
MARANTZ
Technischer Service
Duenstrasse 3
3186 Düringen
Switzerland

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

PORTUGAL
MARANTZ
Divisao philips S.A. service
Oturela-carnaxide
2795 Linda-A-VELHA
Telex: 43906

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

TECHNICAL SPECIFICATIONS (DIN)

Power Amplifier Section

| | |
|-------------------|-------|
| IHF Dynamic Power | |
| 2 ohms | : 65W |
| 4 ohms | : 60W |
| 8 ohms | : 42W |

| | |
|--------------------------------|-------|
| Power Output Per Channel | |
| DIN 8 ohms 1 kHz 1% THD | : 38W |
| FTC 4 ohms 40–20 kHz 0.06% THD | : 40W |
| FTC 8 ohms 40–20 kHz 0.03% THD | : 35W |

| | |
|-------------------------------------|----------|
| Total Harmonic Distortion at 8 ohms | : 0.015% |
| I.M. Distortion at 8 ohms | : 0.015% |
| Damping Factor | : 100 |

Phono Amplifier Section

| | |
|----------------------|------------|
| MM Cartridge Input | |
| Frequency Difference | : ±0.5 dB |
| Input Sensitivity | : 2.5 mV |
| Input Impedance | : 47k Ohms |

High Level Section

| | |
|---|-------------|
| Frequency Response | : 10–60 kHz |
| Signal to Noise Ratio (A weighted) | : 87 dB |
| Input Sensitivity | : 150 mV |
| Input Impedance | : 33k Ohms |
| Tape Output Level [Phono (MM) 5 mV 1 kHz Input] | : 300 mV |
| Tape Output Impedance (Phono) | : 220 Ohms |
| Tone Control Action 100 Hz | : ±6 dB |
| 10 kHz | : ±6 dB |

General

| | |
|--------------------|-------------|
| Power Requirements | |
| 2 Voltage version | : 220V/240V |
| 4 Voltage version | : 110V–240V |

| | |
|---------------------------------|--------|
| Power Consumption (Rated Power) | |
| AB Class Moode | : 135W |
| A Class Moode | : — |

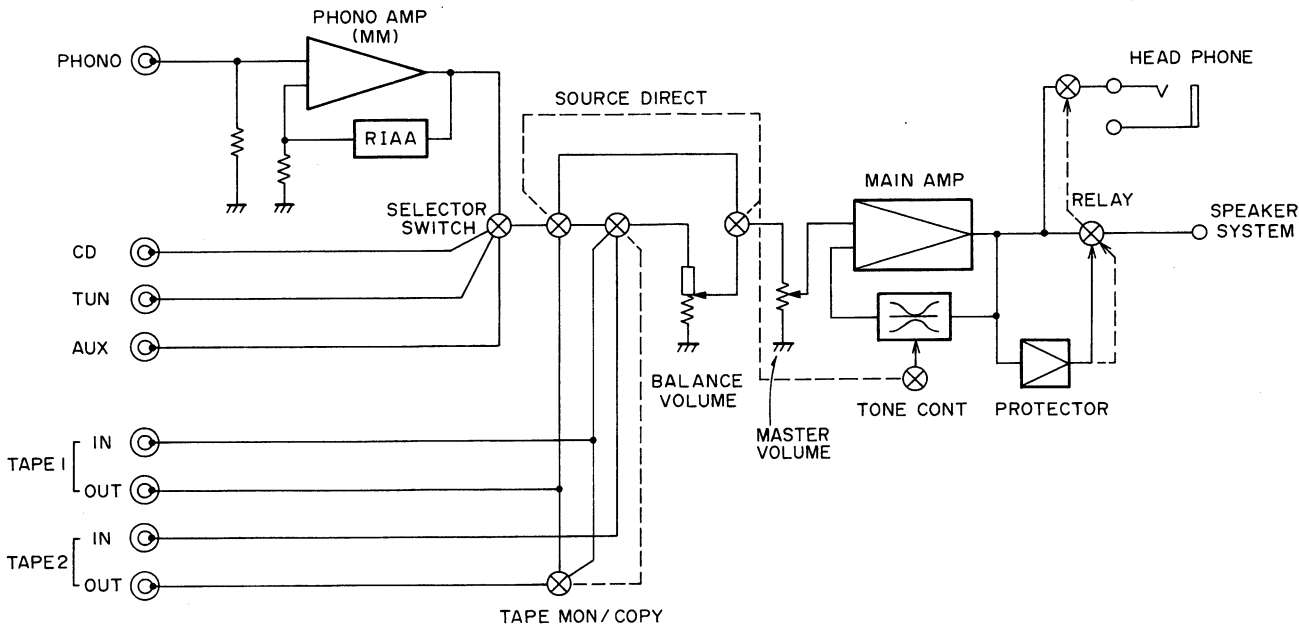
| | |
|--------------|----------|
| Dimensions | |
| Panel Width | : 420 mm |
| Panel Height | : 118 mm |
| Depth | : 280 mm |

| | |
|------------|---------|
| Weight | |
| Unit alone | : 10 kg |

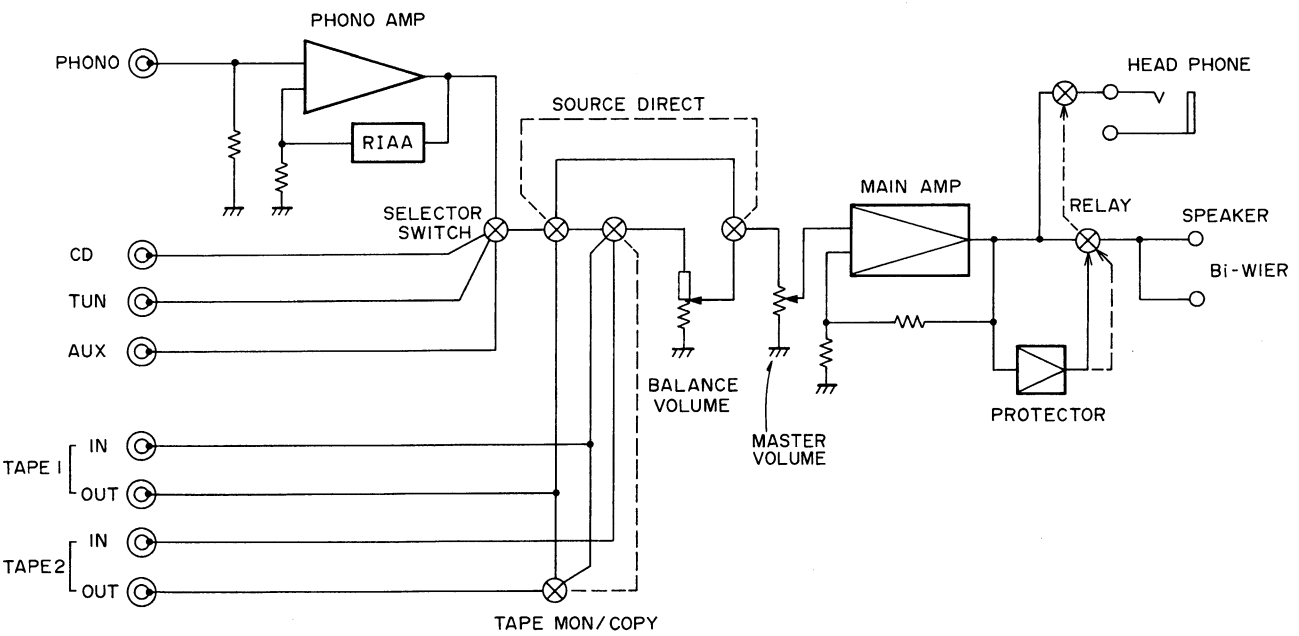
Specifications and appearance are subject to change for modification without notice.

1. BLOCK DIAGRAM

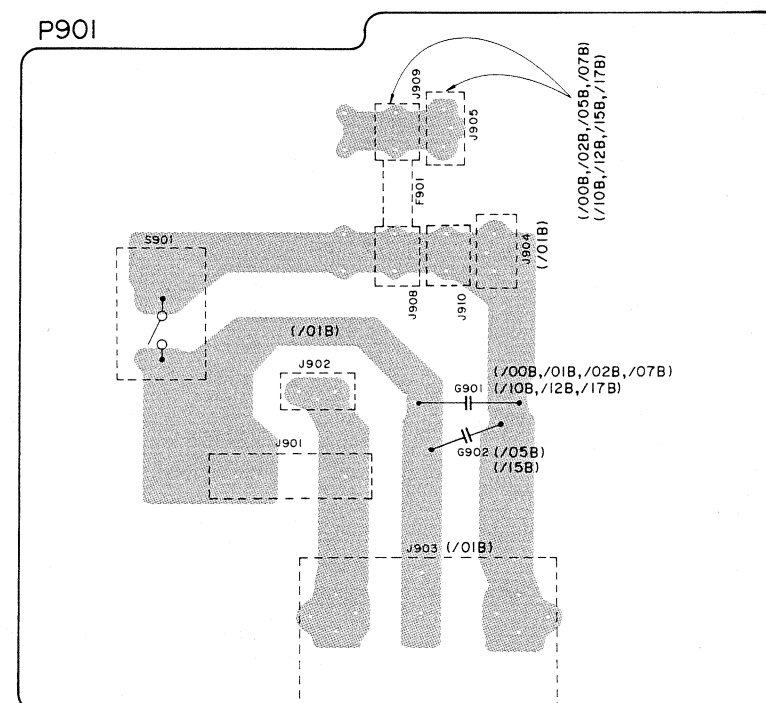
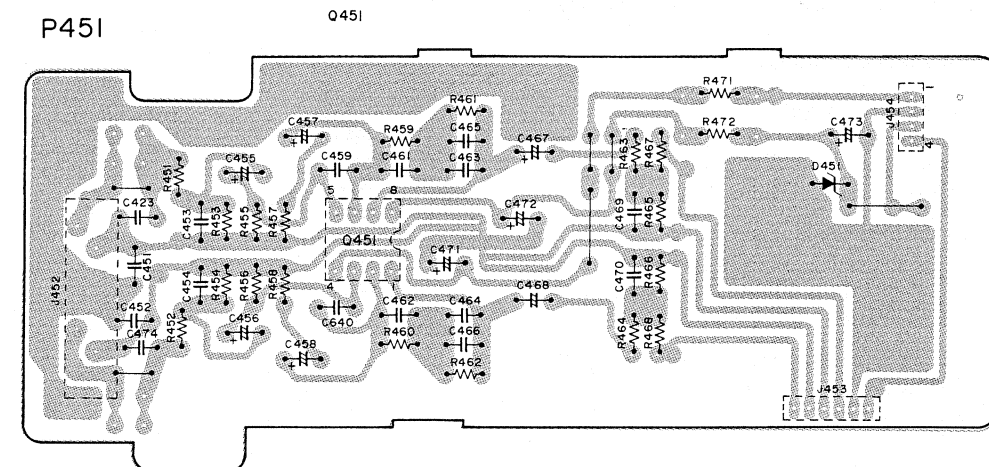
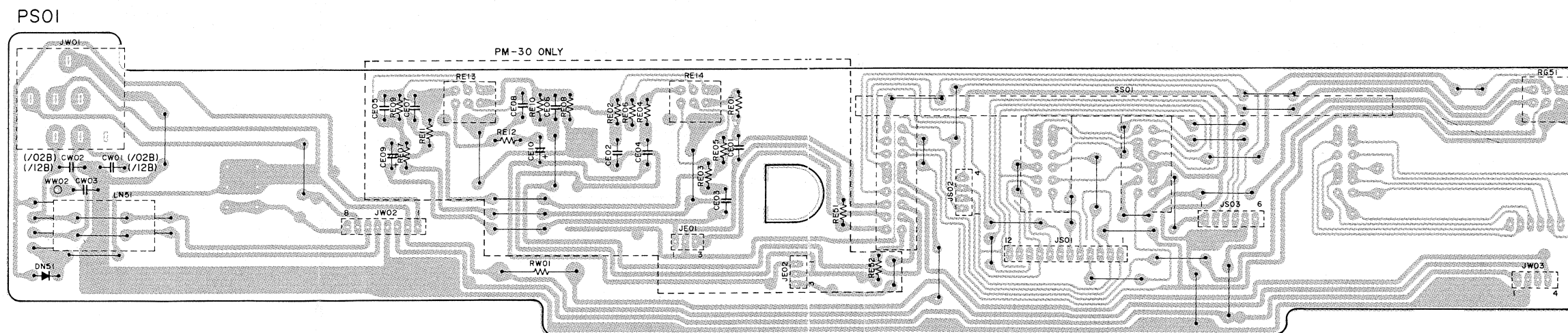
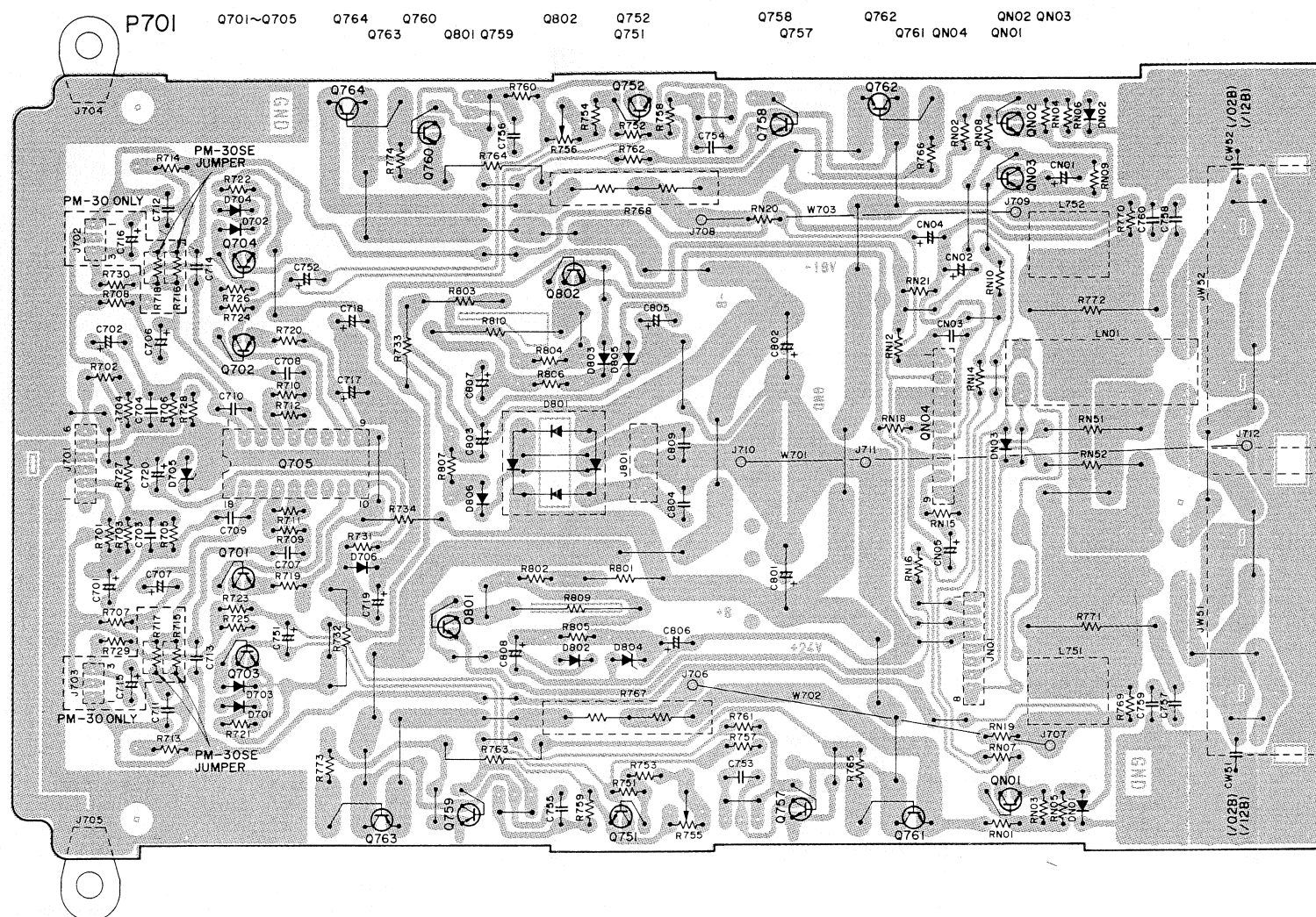
PM-30



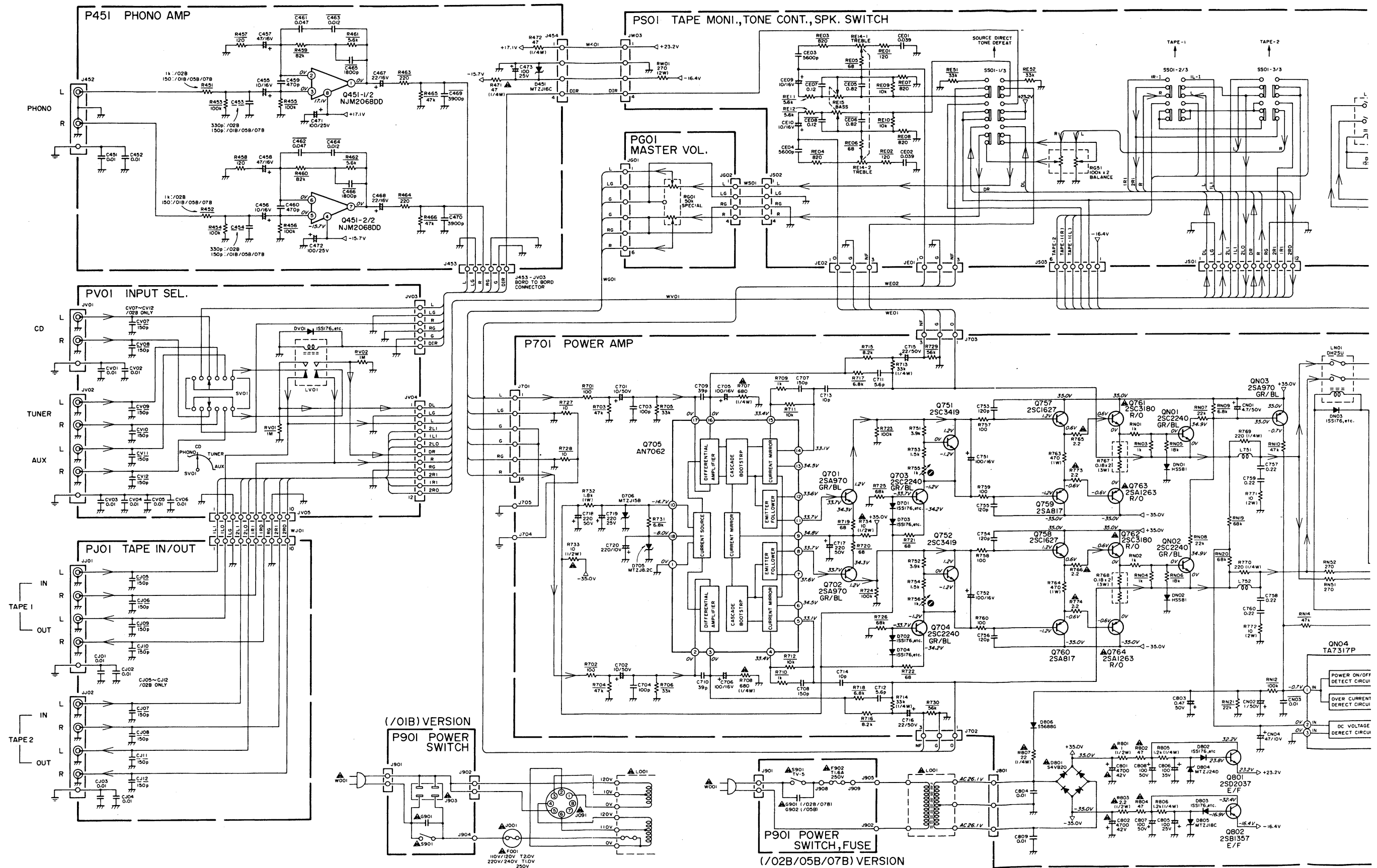
PM-30SE



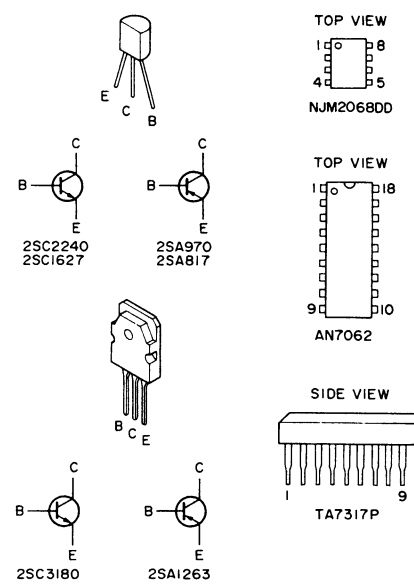
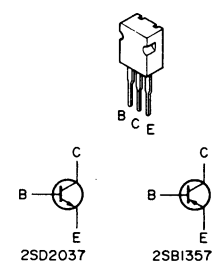
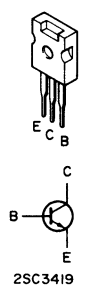
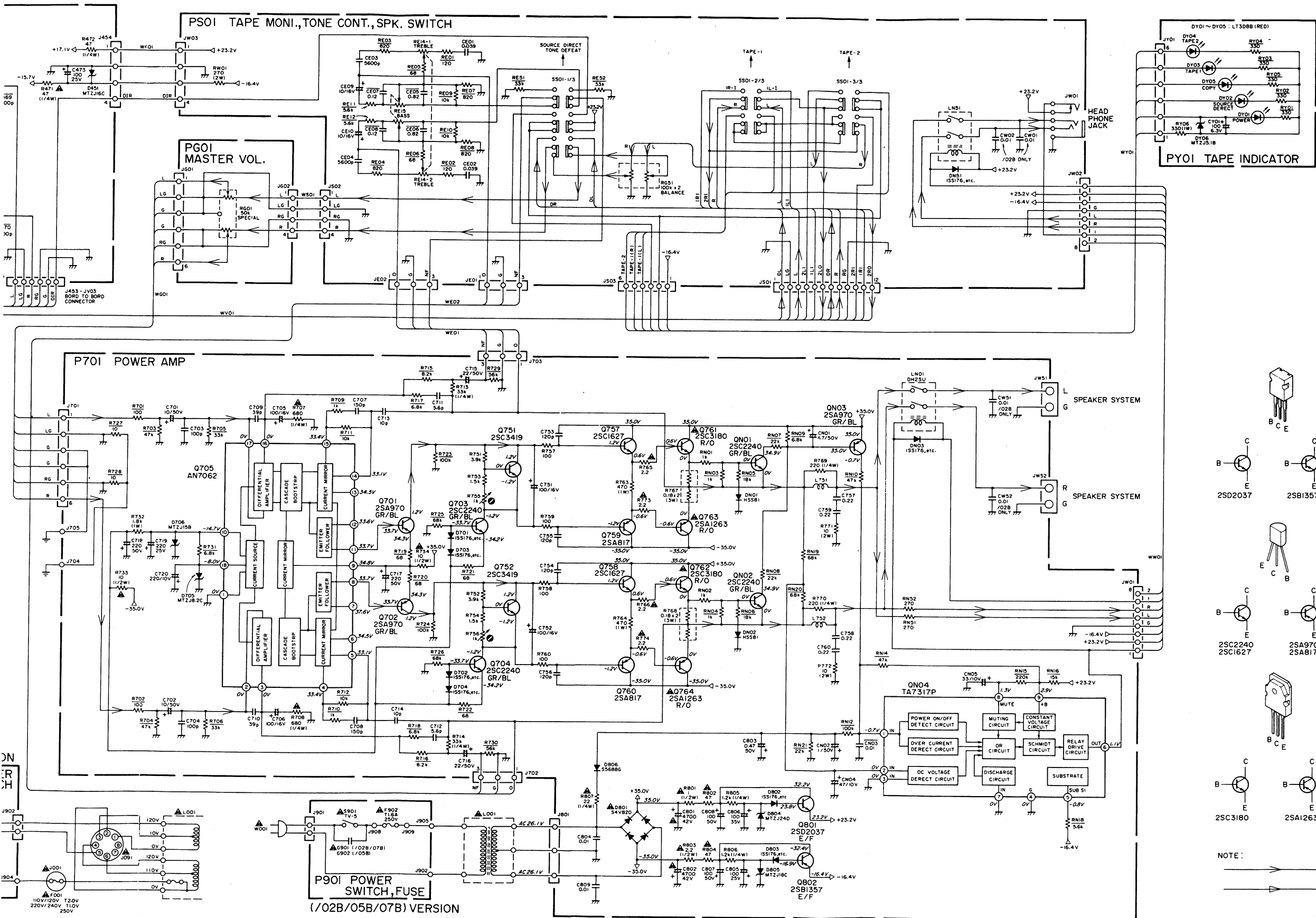
2. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern side)



PM-30



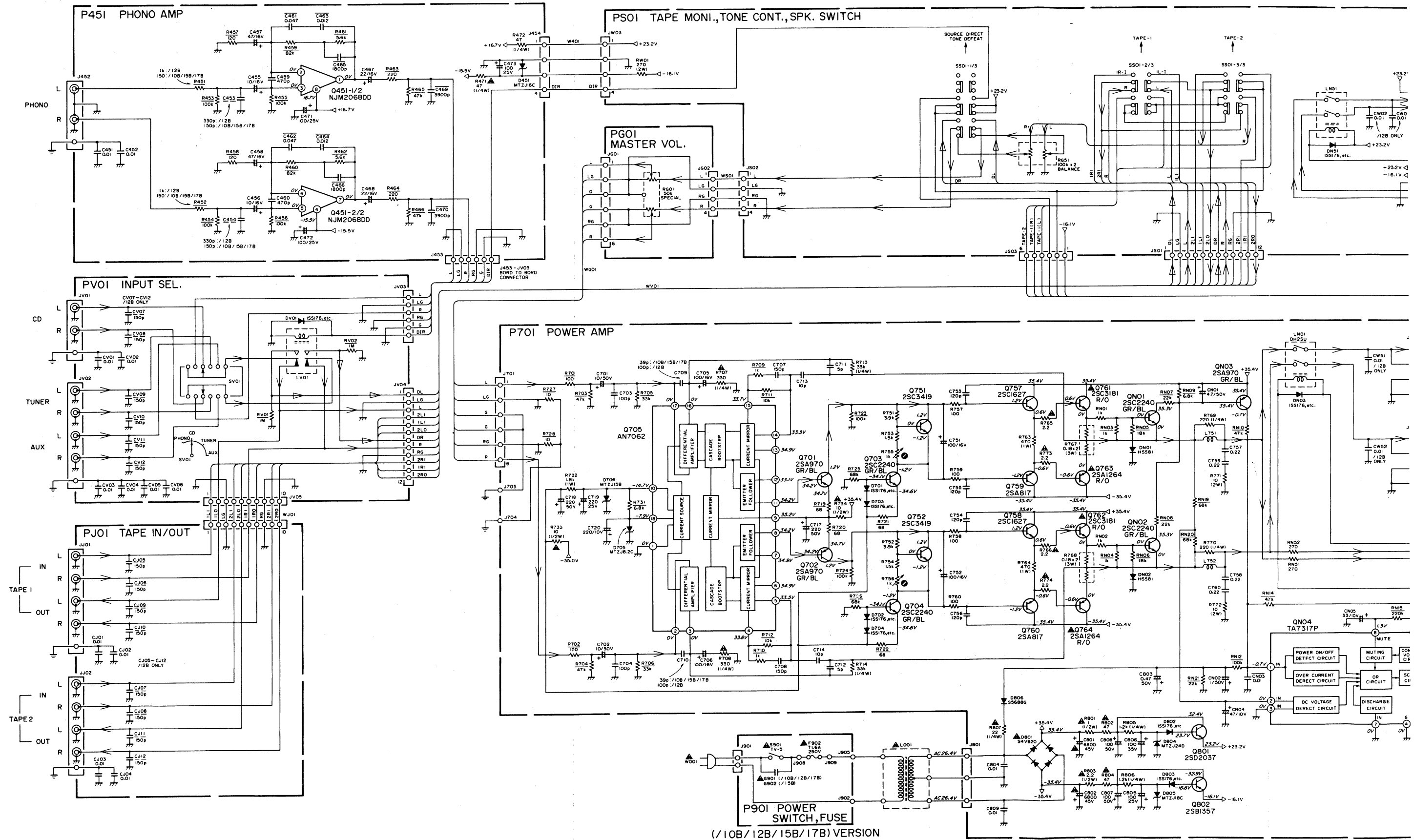
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 Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ▲. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.



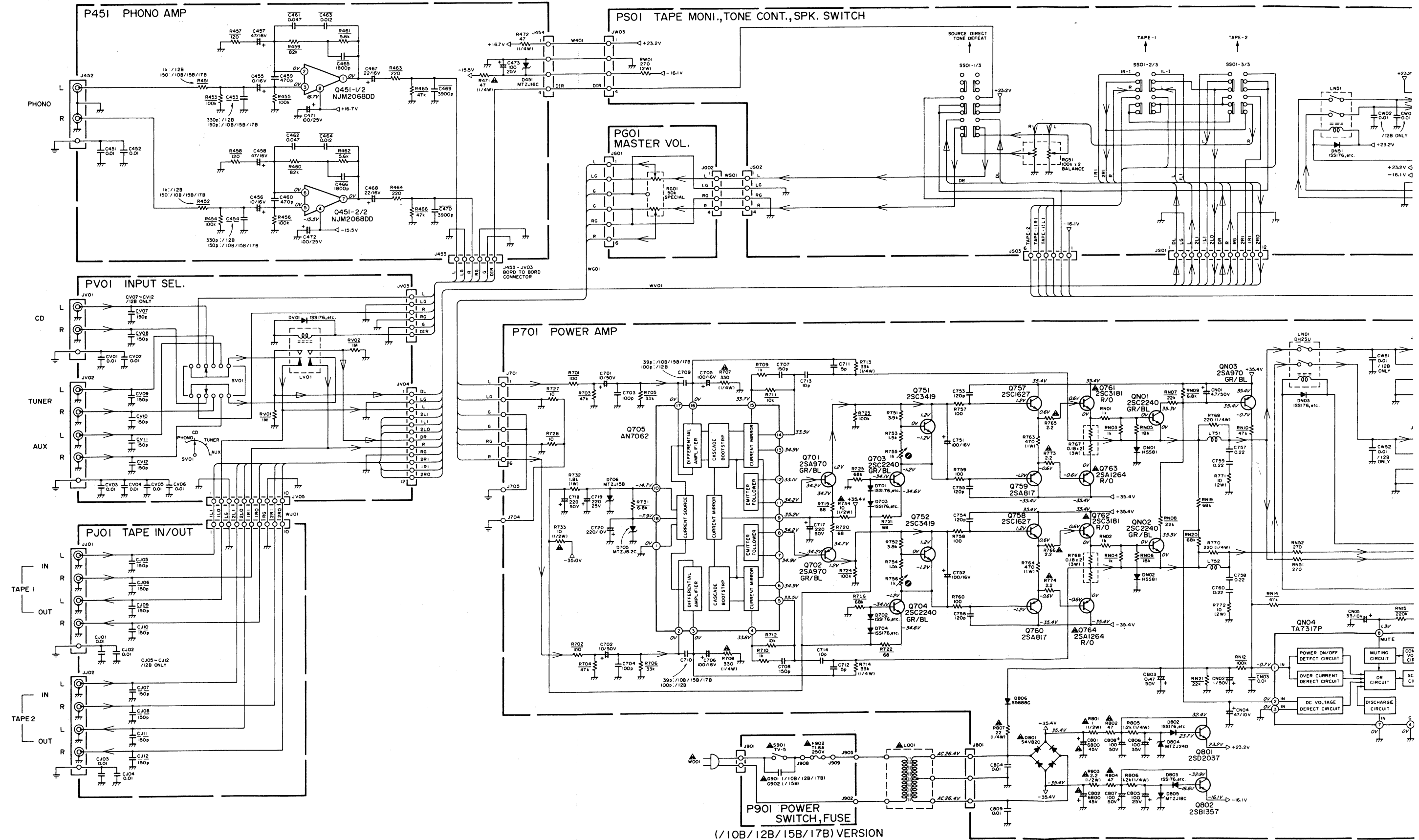
NOTE:
—→ NORMAL SIGNAL LINE
—→ SOURCE DIRECT SIGNAL LINE

NOTE ON SAFETY:
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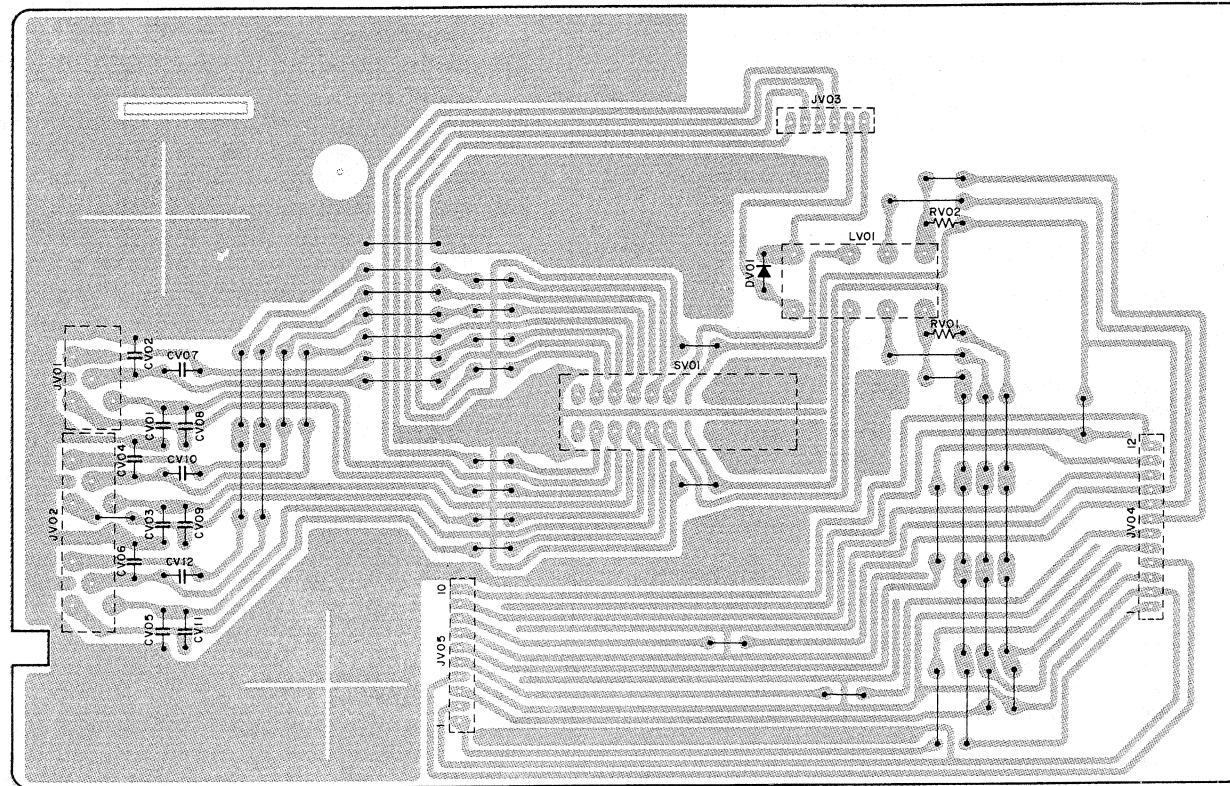
PM-30SE



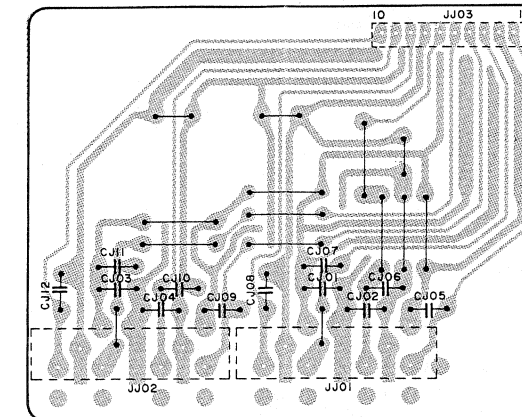
PM-30SE



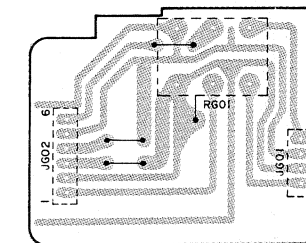
PV01



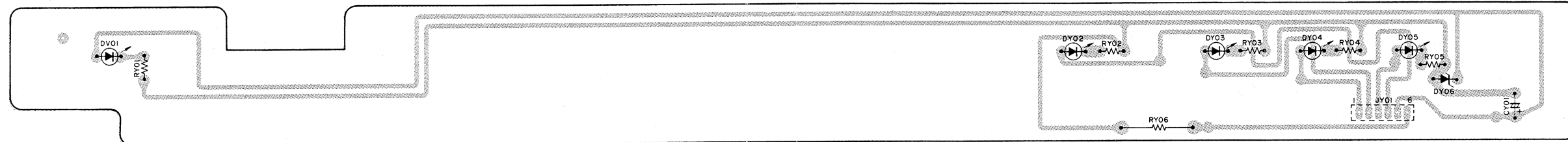
PJ01



PG01



PY01



[illegible]

4. IDLING CURRENT ADJUSTMENT

- (1) Before switching the power ON, set the Master Volume control to the minimum position and the Balance and Tone controls to the center positions. Also set semi-fixed resistors R755 (L CH) and R756 (R CH) on PCB P701 to the center positions.
- (2) Each of the cement resistors R767 (L CH) and R768 (R CH) on the PCB P701 is provided with three test points. Connect a digital voltmeter, set for the DC voltage input, to the test points at the two extremities of the three test points of R767 or R768.
- (3) After the setup above, switch the power ON and adjust semi-fixed resistor R755 (L CH) or R756 (R CH) on PCB P701 according to the digital voltmeter reading. The target setting value is 15 mV (41.6 mA) for both the L CH and R CH.

| Elapsed time after power ON | Idling current setting value |
|-----------------------------|------------------------------|
| 30 sec. — 1 min. | 15 mV |
| 1 min. — 2 min. | 16 mV |
| 2 min. — 4 min. | 16.6 mV |
| More than 4 min. | 15 mV |

Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ▲. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

With the /05B/07B/15B/17B Versions, the rated supply voltage of 240V can be changed to 220V. In the same way, the 220V rated supply voltage of the /02B/10B/12B Versions can be changed to 240V.

6. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing

| Item | Use |
|--------------------------|---|
| Distortion Analyzer | Distortion measurements |
| Audio Oscillator | Sinewave and squarewave signal source |
| ACVTVM | Voltage measurements (AC) |
| Oscilloscope | Waveform analysis and trouble shooting and ASO aignment |
| Circuit Tester | Trouble shooting |
| DCVTVM | Voltage measurements (DC) |
| AC Wattmeter | Monitors primary power to amplifier |
| Line Voltmeter | Monitors potential of primary power to amplifier |
| Variable Autotransformer | Adjust level of primery power to amplifier |
| Shorting Plug | Shorts amplifier input to eliminate noise pickup |

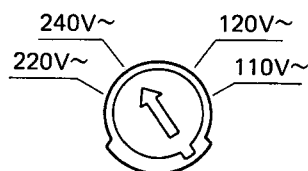
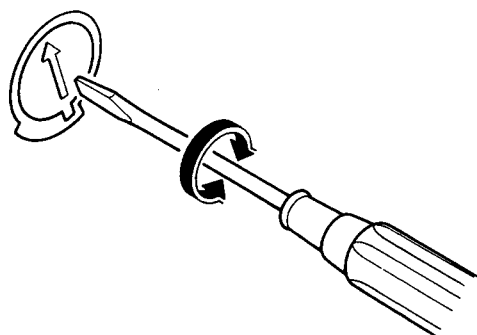
7. VOLTAGE CONVERSION

• EUROPEAN MODEL ONLY

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

VOLTAGE SELECTOR

CAUTION
DISCONNECT POWER SUPPLY CORD FROM AC
OUTLET BEFORE CONVERTING VOLTAGE.



8. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

- R*****: (1) GD05 --- 140, Carbon film fixed resistor, $\pm 5\%$, 1/4W
R***: (2) GD05 --- 160, Carbon film fixed resistor, $\pm 5\%$, 1/6W

① — Resistance value

Examples

| ① Resistance value | | | | |
|---------------------|---------------------|----------------------|----------------------|--|
| 0.1 Ω ...001 | 10 Ω ...100 | 1k Ω ...102 | 100k Ω ...104 | |
| 0.5 Ω ...005 | 18 Ω ...180 | 2.7k Ω ...272 | 680k Ω ...684 | |
| 1 Ω ...010 | 100 Ω ...101 | 10k Ω ...103 | 1M Ω ...105 | |
| 6.8 Ω ...068 | 390 Ω ...391 | 22k Ω ...223 | 4.7M Ω ...475 | |

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.

- (1) DD1 --- 370, Ceramic condenser
 Disc type
 Temp. coeff. P350 ~ N1000, 50V
- ① ②
- Capacity value
 Tolerance

Examples

- ① Tolerance (Capacity deviation)
 $\pm 0.25\text{pF}$...0
 $\pm 0.5\text{pF}$...1
 $\pm 5\%$...5

* Tolerance of COMMON PARTS handled here are as follows:

0.5pF ~ 5pF... $\pm 0.25\text{pF}$
 6pF ~ 10pF... $\pm 0.5\text{pF}$
 12pF ~ 560pF... $\pm 5\%$

- ② Capacity value
 0.5pF...005 3pF...030 100pF...101
 1pF...010 10pF...100 220pF...221
 1.5pF...015 47pF...470 560pF...561

C***: CERAMIC CAP.

- (1) DK16 --- 300, High dielectric constant ceramic condenser
 Disc type
 Temp. chara. 2B4, 50V
- ①
- Capacity value

Example

- ② Capacity value
 100pF...101 1000pF...102 10000pF...103
 470pF...471 2200pF...222

C***: ELECTROLY CAP. ($\text{—} \nabla \text{—}$), FILM CAP. ($\text{—} \text{||} \text{—}$)

- (1) EA --- 10, Electrolytic condenser
 One-way lead type, Tolerance $\pm 20\%$
- ① ②
- Dielectric strength
 Capacity value

Examples

- ① Capacity value
 0.1 μF ...104 4.7 μF ...475 100 μF ...107
 0.33 μF ...334 10 μF ...106 330 μF ...337
 1 μF ...105 22 μF ...226 1100 μF ...108
 2200 μF ...228

- ② Working voltage
 6.3V...006 25V...025
 10V...010 35V...035
 16V...016 50V...050

- (2) DF15 --- 350, Plastic film condenser
 One-way type, Mylar $\pm 5\%$ 50V
- ①
- Capacity value

Examples

- ① Capacity value
 0.001 μF (1000pF)...102 0.1 μF ...104
 0.0018 μF ...182 0.56 μF ...564
 0.01 μF ...103 1 μF ...105
 0.015 μF ...153

| REF. DESIG. | PART NO. | DESCRIPTION |
|-------------------|----------------------------------|--|
| | | PG01-MASTER VOLUME CIRCUIT BOARD |
| RG01 | 4822 101 30653 | Variable Resistor 50K Ω |
| | | PJ01-TAPE IN/OUT CIRCUIT BOARD |
| CJ01 } CJ04 | 4822 122 32486 | Ceramic Cap. 0.01 μF +80% -20% |
| JJ01 JJ02 | 4822 266 30284 4822 266 30284 | Terminal, 4P RCA Terminal, 4P RCA |
| | | PS01-TAPE/TONE/SPK. CIRCUIT BOARD |
| CE09 | 4822 124 90352 | Elect. Cap. 10 μF 16V /01B/02B/05B/07B |
| CE10 | 4822 124 90352 | Elect. Cap. 10 μF 16V /01B/02B/05B/07B |
| CW01 | 4822 122 32486 | Ceramic 0.01 μF +80% -20% /02B/12B |
| CW02 | 4822 122 32486 | Ceramic 0.01 μF +80% -20% /02B/12B |
| RE13 | 4822 100 30139 | Variable Resistor 50K Ω (C) /01B/02B/05B/07B |
| RE14 | 4822 100 30139 | Variable Resistor 50K Ω (C) /01B/02B/05B/07B |
| RG51 | 4822 100 30138 | Variable Resistor 100K Ω (MN) |
| RW01 | 4822 116 60455 | Metal Resistor 270 Ω $\pm 5\%$ 2W |
| DN51 | 4822 130 33305 | Diode 1SS176, etc. |
| JW01 | 4822 267 31227 4822 267 31229 | Jack, Headphone /01B/02B/05B/07B Jack /10B/12B/15B/17B |
| LN51 | 4822 280 20196 | Relay |
| SS01 | 4822 276 12956 | Push Switch |
| | | PV01-INPUT SELECTOR CIRCUIT BOARD |
| CV01 } CV06 | 4822 122 32486 | Ceramic Cap. 0.01 μF +80% -20% |
| DV01 | 4822 130 33305 | Diode 1SS176, etc. |
| JV01 JV02 | 4822 266 30282 4822 266 30284 | Terminal, 2P RCA Terminal, 4P RCA |
| LV01 | 4822 280 20195 | Relay, SZ-2104 |
| SV01 | 4822 277 21412 | Slide Switch, Selector |

| REF. DESIG. | PART NO. | DESCRIPTION |
|----------------------|----------------|--|
| | | PY01-TAPE INDICATOR CIRCUIT BOARD |
| CY01 | 4822 124 21737 | Elect Cap. 100 μ F 6.3V |
| RY06 | 4822 111 50474 | Resistor 330 Ω \pm 5% |
| DY01 DY05 DY06 | 4822 130 80326 | L.E.D. LT3D8B (RED) |
| | 4822 130 80317 | Zener Diode RD5.1JB2/MTZJ5.1B |
| | | P451-PHONO AMP. CIRCUIT BOARD |
| | | P451-CAPACITORS |
| C451 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| C452 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| C453 | 4822 126 11069 | Ceramic 150pF \pm 10% |
| | 4822 121 51037 | /01B/05B/07B Film 150pF \pm 5% |
| C454 | 4822 126 11069 | /10B/12B/15B/17B Ceramic 150pF \pm 10% |
| | 4822 121 51037 | /01B/05B/07B Film 150pF \pm 5% |
| | | /10B/12B/15B/17B |
| C455 | 4822 124 90352 | Elect 10 μ F 16V |
| C456 | 4822 124 90352 | Elect 10 μ F 16V |
| C457 | 4822 124 41539 | Elect 47 μ F 16V |
| C458 | 4822 124 41539 | Elect 47 μ F 16V |
| C459 | 4822 126 11127 | Ceramic 470pF \pm 10% /02B |
| C460 | 4822 126 11127 | Ceramic 470pF \pm 10% /02B |
| C461 | 4822 121 42764 | Film 0.047 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C462 | 4822 121 42764 | Film 0.047 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C463 | 4822 121 42755 | Film 0.012 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C464 | 4822 121 42755 | Film 0.012 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C465 | 4822 121 42758 | Film 1800pF \pm 5% |
| | | /10B/12B/15B/17B |
| C466 | 4822 121 42758 | Film 1800pF \pm 5% |
| | | /10B/12B/15B/17B |
| C467 | 4822 124 90358 | Elect 22 μ F 16V |
| C468 | 4822 124 90358 | Elect 22 μ F 16V |
| C469 | 4822 121 42763 | Film 3900pF \pm 5% |
| | | /10B/12B/15B/17B |
| C470 | 4822 121 42763 | Film 3900pF \pm 5% |
| | | /10B/12B/15B/17B |
| C471 | 4822 124 41535 | Elect 100 μ F 25V |
| | 4822 124 90365 | /01B/02B/05B/07B Elect 220 μ F 25V |
| | | /10B/12B/15B/17B |
| C472 | 4822 124 41535 | Elect 100 μ F 25V |
| | 4822 124 90365 | /01B/02B/05B/07B Elect 220 μ F 25V |
| | | /10B/12B/15B/17B |
| C473 | 4822 124 41535 | Elect 100 μ F 25V |
| | 4822 124 90365 | /01B/02B/05B/07B Elect 220 μ F 25V |
| | | /10B/12B/15B/17B |

| REF. DESIG. | PART NO. | DESCRIPTION |
|-------------|----------------|--|
| | | P451-RESISTORS |
| ▲ R471 | 4822 111 90731 | 47 Ω \pm 2% 1/4W, Fuse |
| R472 | 4822 111 30006 | 47 Ω \pm 5% 1/4W |
| | | P451-SEMICONDUCTORS |
| D451 | 4822 130 80498 | Zener RD16JB2/MTZJ16C |
| Q451 | 4822 209 73064 | IC NJM2068DD |
| | | P451-MISCELLANEOUS |
| J452 | 4822 265 20355 | Terminal, 2P RCA |
| | | P701-POWER AMP. CIRCUIT BOARD |
| | | P701-CAPACITORS |
| CN01 | 4822 124 22274 | Elect 4.7 μ F 50V |
| CN02 | 4822 124 41543 | Elect 1 μ F 50V |
| CN04 | 4822 124 22275 | Elect 47 μ F 10V |
| CN05 | 4822 124 23417 | Elect 33 μ F 10V |
| CW51 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| CW52 | 4822 122 32486 | /02B/12B Ceramic 0.01 μ F +80% -20% |
| | | /02B/12B |
| C701 | 4822 124 22571 | Elect 10 μ F 50V |
| C702 | 4822 124 22571 | Elect 10 μ F 50V |
| C703 | 4822 121 51517 | Film 100pF \pm 5% |
| C704 | 4822 121 51517 | Film 100pF \pm 5% |
| C705 | 4822 124 90354 | Elect 100 μ F 16V |
| C706 | 4822 124 90354 | Elect 100 μ F 16V |
| C707 | 4822 121 51037 | Film 150pF \pm 5% |
| | 4822 121 51037 | /01B/02B/05B/07B Film 150pF \pm 5% |
| | | /10B/15B/17B |
| C708 | 4822 126 11069 | Ceramic 150pF /12B |
| | 4822 121 51037 | Film 150pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 51037 | Film 150pF \pm 5% |
| | | /10B/15B/17B |
| C709 | 4822 126 11069 | Ceramic 150pF /12B |
| | 4822 126 11068 | Ceramic 39pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 43135 | Film 39pF \pm 5% |
| | | /10B/15B/17B |
| C710 | 4822 126 10364 | Ceramic 100pF /12B |
| | | Ceramic 39pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 43135 | Film 39pF \pm 5% |
| | | /10B/15B/17B |
| C711 | 4822 126 10364 | Ceramic 100pF /12B |
| | 4822 126 11126 | Ceramic 5.6pF \pm 10% |
| | | /01B/02B/05B/07B |
| | 4822 121 43128 | Film 10pF \pm 10% |
| | | /10B/12B/15B/17B |
| C712 | 4822 126 11126 | Ceramic 5.6pF \pm 10% |
| | | /01B/02B/05B/07B |
| | 4822 121 43128 | Film 10pF \pm 10% |
| | | /10B/12B/15B/17B |
| C713 | 4822 126 11125 | Ceramic 10pF \pm 5% |
| | 4822 121 43128 | /01B/02B/05B/07B Film 10pF \pm 10% |
| | | /10B/12B/15B/17B |

| REF. DESIG. | PART NO. | DESCRIPTION |
|-----------------------|----------------|---|
| C714 | 4822 126 11125 | Ceramic 10pF $\pm 5\%$ /01B/02B/05B/07B |
| | 4822 121 43128 | Film 10pF $\pm 10\%$ /10B/12B/15B/17B |
| C715 | 4822 124 90362 | Elect 22 μ F 50V /01B/02B/05B/07B |
| C716 | 4822 124 90362 | Elect 22 μ F 50V /01B/02B/05B/07B |
| C717 | 4822 124 90366 | Elect 220 μ F 50V |
| C718 | 4822 124 90366 | Elect 220 μ F 50V |
| C719 | 4822 124 41535 | Elect 100 μ F 25V /01B/02B/05B/07B |
| | 4822 124 90365 | Elect 220 μ F 25V /10B/12B/15B/17B |
| C720 | 4822 124 41535 | Elect 100 μ F 25V /01B/02B/05B/07B |
| | 4822 124 90365 | Elect 220 μ F 25V /10B/12B/15B/17B |
| C751 | 4822 124 90354 | Elect 100 μ F 16V |
| C752 | 4822 124 90354 | Elect 100 μ F 16V |
| C753 C756 | 4822 121 43126 | Film 120pF $\pm 5\%$ |
| ▲ C801 | 4822 124 23458 | Elect 4700 μ F 42V /01B/02B/05B/07B |
| | 4822 124 42044 | Elect 6800 μ F 45V /10B/12B/15B/17B |
| ▲ C802 | 4822 124 23458 | Elect 4700 μ F 42V /01B/02B/05B/07B |
| | 4822 124 42044 | Elect 6800 μ F 45V /10B/12B/15B/17B |
| C803 | 4822 124 22273 | Elect 0.47 μ F 50V |
| C804 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| C805 | 4822 124 41535 | Elect 100 μ F 25V |
| C806 | 4822 124 41536 | Elect 100 μ F 35V |
| C807 | 4822 124 90355 | Elect 100 μ F 50V |
| C808 | 4822 124 90355 | Elect 100 μ F 50V |
| C809 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| P701-RESISTORS | | |
| RN01 | 4822 111 91257 | 1K Ω $\pm 5\%$ 1/6W |
| RN02 | 4822 111 91257 | 1K Ω $\pm 5\%$ 1/6W |
| RN51 | 4822 116 60455 | 270 Ω $\pm 5\%$ 2W, Metal |
| RN52 | 4822 116 60455 | 270 Ω $\pm 5\%$ 2W, Metal |
| ▲ R707 | 4822 116 82608 | 680 Ω $\pm 2\%$ 1/4W, Fuse /02B/05B |
| | 4822 116 81748 | 330 Ω $\pm 2\%$ 1/4W, Fuse /12B/15B |
| ▲ R708 | 4822 116 82608 | 680 Ω $\pm 2\%$ 1/4W, Fuse /02B/05B |
| | 4822 116 81748 | 330 Ω $\pm 2\%$ 1/4W, Fuse /12B/15B |
| R713 | 4822 273 10214 | 33K Ω $\pm 5\%$ 1/4W |
| R714 | 4822 273 10214 | 33K Ω $\pm 5\%$ 1/4W |

| REF. DESIG. | PART NO. | DESCRIPTION |
|----------------------------|----------------|--------------------------------------|
| R732 | 4822 116 60343 | 1.8K Ω $\pm 5\%$ 1W |
| ▲ R733 | 4822 116 60313 | 10 Ω $\pm 5\%$ 1/2W, Fusible |
| ▲ R734 | 4822 116 60313 | 10 Ω $\pm 5\%$ 1/2W, Fusible |
| R755 | 4822 100 11373 | 4.7K Ω , Trimming |
| R756 | 4822 100 11373 | 4.7K Ω , Trimming |
| R757 | 4822 111 91285 | 100 Ω $\pm 5\%$ 1/6W |
| R758 | 4822 111 91285 | 100 Ω $\pm 5\%$ 1/6W |
| R759 | 4822 111 91285 | 100 Ω $\pm 5\%$ 1/6W |
| R760 | 4822 111 91285 | 100 Ω $\pm 5\%$ 1/6W |
| R763 | 4822 116 60267 | 470 Ω $\pm 5\%$ 1/6W |
| R764 | 4822 116 60267 | 470 Ω $\pm 5\%$ 1/6W |
| ▲ R765 | 4822 111 91424 | 2.2 Ω $\pm 5\%$ 1/6W |
| ▲ R766 | 4822 111 91424 | 2.2 Ω $\pm 5\%$ 1/6W |
| R767 | 4822 116 82049 | 0.18 $\Omega \times 2$ $\pm 10\%$ 3W |
| R768 | 4822 116 82049 | 0.18 $\Omega \times 2$ $\pm 10\%$ 3W |
| R769 | 4822 116 52849 | 220 Ω $\pm 5\%$ 1/4W |
| R770 | 4822 116 52849 | 220 Ω $\pm 5\%$ 1/4W |
| R771 | 4822 111 90726 | 10 Ω $\pm 5\%$ 2W |
| R772 | 4822 111 90726 | 10 Ω $\pm 5\%$ 2W |
| ▲ R773 | 4822 111 91424 | 2.2 Ω $\pm 5\%$ 1/6W |
| ▲ R774 | 4822 111 91424 | 2.2 Ω $\pm 5\%$ 1/6W |
| ▲ R801 | 4822 116 60306 | 1 Ω $\pm 5\%$ 1/2W, Fusible |
| ▲ R802 | 4822 111 90731 | 47 Ω $\pm 2\%$ 1/4W, Fuse |
| ▲ R803 | 4822 111 60308 | 2.2 Ω $\pm 5\%$ 1/2W, Fusible |
| ▲ R804 | 4822 111 90731 | 47 Ω $\pm 2\%$ 1/4W, Fuse |
| R805 | 4822 111 91423 | 1.2K Ω $\pm 5\%$ 1/4W |
| R806 | 4822 111 91423 | 1.2K Ω $\pm 5\%$ 1/4W |
| ▲ R807 | 4822 113 90119 | 22 Ω $\pm 2\%$ 1/4W, Fuse |
| P701-SEMICONDUCTORS | | |
| DN01 | 4822 130 80837 | Diode HSS81 |
| DN02 | 4822 130 80837 | Diode HSS81 |
| DN03 | 4822 130 33305 | Diode 1SS176, etc. |
| D701 | | |
| D704 | 4822 130 33305 | Diode 1SS176, etc. |
| D705 | 4822 130 80273 | Zener RD8.2JB2/MTZJ8.2C |
| D706 | 4822 130 80322 | Zener RD15JB1/MTZJ15B |
| ▲ D801 | 4822 130 31007 | Diode S4VB-20 |
| D802 | 4822 130 33305 | Diode 1SS176, etc. |
| D803 | 4822 130 33305 | Diode 1SS176, etc. |
| D804 | 4822 130 80116 | Zener RD24JB2/MTZJ24D |
| D805 | 4822 130 80498 | Zener RD16JB2/MTZJ16C |
| ▲ D806 | 4822 130 80839 | Diode S5688G |
| QN01 | 4822 130 43233 | Transistor 2SC2240(GR, BL) |
| QN02 | 4822 130 43233 | Transistor 2SC2240(GR, BL) |
| QN03 | 4822 130 42951 | Transistor 2SA970(GR, BL) |
| QN04 | 4822 290 83312 | IC TA7317P |
| Q701 | 4822 130 42951 | Transistor 2SA970(GR, BL) |
| Q702 | 4822 130 42951 | Transistor 2SA970(GR, BL) |
| Q703 | 4822 130 43233 | Transistor 2SC2240(GR, BL) |
| Q704 | 4822 130 43233 | Transistor 2SC2240(GR, BL) |
| Q705 | 4822 209 83732 | IC AN7062P |
| Q751 | 4822 130 60526 | Transistor 2SD1508 |
| Q752 | 4822 130 60526 | Transistor 2SD1508 |
| Q757 | 4822 130 60696 | Transistor 2SC1627(O, Y) |
| Q758 | 4822 130 60696 | Transistor 2SC1627(O, Y) |
| Q759 | 4822 130 69693 | Transistor 2SA817(O, Y) |

| REF. DESIG. | PART NO. | DESCRIPTION |
|----------------------|----------------|--|
| | | PY01-TAPE INDICATOR CIRCUIT BOARD |
| CY01 | 4822 124 21737 | Elect Cap. 100 μ F 6.3V |
| RY06 | 4822 111 50474 | Resistor 330 Ω \pm 5% |
| DY01 DY05 DY06 | 4822 130 80326 | L.E.D. LT3D8B (RED) |
| | 4822 130 80317 | Zener Diode RD5.1JB2/MTZJ5.1B |
| | | P451-PHONO AMP. CIRCUIT BOARD |
| | | P451-CAPACITORS |
| C451 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| C452 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| C453 | 4822 126 11069 | Ceramic 150pF \pm 10% |
| | 4822 121 51037 | Film 150pF \pm 5% |
| | | /10B/12B/15B/17B |
| C454 | 4822 126 11069 | Ceramic 150pF \pm 10% |
| | 4822 121 51037 | Film 150pF \pm 5% |
| | | /10B/12B/15B/17B |
| C455 | 4822 124 90352 | Elect 10 μ F 16V |
| C456 | 4822 124 90352 | Elect 10 μ F 16V |
| C457 | 4822 124 41539 | Elect 47 μ F 16V |
| C458 | 4822 124 41539 | Elect 47 μ F 16V |
| C459 | 4822 126 11127 | Ceramic 470pF \pm 10% /02B |
| C460 | 4822 126 11127 | Ceramic 470pF \pm 10% /02B |
| C461 | 4822 121 42764 | Film 0.047 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C462 | 4822 121 42764 | Film 0.047 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C463 | 4822 121 42755 | Film 0.012 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C464 | 4822 121 42755 | Film 0.012 μ F \pm 5% |
| | | /10B/12B/15B/17B |
| C465 | 4822 121 42758 | Film 1800pF \pm 5% |
| | | /10B/12B/15B/17B |
| C466 | 4822 121 42758 | Film 1800pF \pm 5% |
| | | /10B/12B/15B/17B |
| C467 | 4822 124 90358 | Elect 22 μ F 16V |
| C468 | 4822 124 90358 | Elect 22 μ F 16V |
| C469 | 4822 121 42763 | Film 3900pF \pm 5% |
| | | /10B/12B/15B/17B |
| C470 | 4822 121 42763 | Film 3900pF \pm 5% |
| | | /10B/12B/15B/17B |
| C471 | 4822 124 41535 | Elect 100 μ F 25V |
| | | /01B/02B/05B/07B |
| | 4822 124 90365 | Elect 220 μ F 25V |
| | | /10B/12B/15B/17B |
| C472 | 4822 124 41535 | Elect 100 μ F 25V |
| | | /01B/02B/05B/07B |
| | 4822 124 90365 | Elect 220 μ F 25V |
| | | /10B/12B/15B/17B |
| C473 | 4822 124 41535 | Elect 100 μ F 25V |
| | | /01B/02B/05B/07B |
| | 4822 124 90365 | Elect 220 μ F 25V |
| | | /10B/12B/15B/17B |

| REF. DESIG. | PART NO. | DESCRIPTION |
|-----------------------|----------------------------------|---|
| Δ R471 R472 | 4822 111 90731 4822 111 30006 | P451-RESISTORS 47 Ω \pm 2% $\frac{1}{4}$ W, Fuse 47 Ω \pm 5% $\frac{1}{4}$ W |
| D451 | 4822 130 80498 | P451-SEMICONDUCTORS Zener RD16JB2/MTZJ16C |
| Q451 | 4822 209 73064 | IC NJM2068DD |
| J452 | 4822 265 20355 | P451-MISCELLANEOUS Terminal, 2P RCA |
| | | P701-POWER AMP. CIRCUIT BOARD |
| | | P701-CAPACITORS |
| CN01 | 4822 124 22274 | Elect 4.7 μ F 50V |
| CN02 | 4822 124 41543 | Elect 1 μ F 50V |
| CN04 | 4822 124 22275 | Elect 47 μ F 10V |
| CN05 | 4822 124 23417 | Elect 33 μ F 10V |
| CW51 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| | | /02B/12B |
| CW52 | 4822 122 32486 | Ceramic 0.01 μ F +80% -20% |
| | | /02B/12B |
| C701 | 4822 124 22571 | Elect 10 μ F 50V |
| C702 | 4822 124 22571 | Elect 10 μ F 50V |
| C703 | 4822 121 51517 | Film 100pF \pm 5% |
| C704 | 4822 121 51517 | Film 100pF \pm 5% |
| C705 | 4822 124 90354 | Elect 100 μ F 16V |
| C706 | 4822 124 90354 | Elect 100 μ F 16V |
| C707 | 4822 121 51037 | Film 150pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 51037 | Film 150pF \pm 5% |
| | | /10B/15B/17B |
| | 4822 126 11069 | Ceramic 150pF /12B |
| C708 | 4822 121 51037 | Film 150pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 51037 | Film 150pF \pm 5% |
| | | /10B/15B/17B |
| | 4822 126 11069 | Ceramic 150pF /12B |
| C709 | 4822 126 11068 | Ceramic 39pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 43135 | Film 39pF \pm 5% |
| | | /10B/15B/17B |
| | 4822 126 10364 | Ceramic 100pF /12B |
| C710 | | Ceramic 39pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 43135 | Film 39pF \pm 5% |
| | | /10B/15B/17B |
| | 4822 126 10364 | Ceramic 100pF /12B |
| C711 | 4822 126 11126 | Ceramic 5.6pF \pm 10% |
| | | /01B/02B/05B/07B |
| | 4822 121 43128 | Film 10pF \pm 10% |
| | | /10B/12B/15B/17B |
| C712 | 4822 126 11126 | Ceramic 5.6pF \pm 10% |
| | | /01B/02B/05B/07B |
| | 4822 121 43128 | Film 10pF \pm 10% |
| | | /10B/12B/15B/17B |
| C713 | 4822 126 11125 | Ceramic 10pF \pm 5% |
| | | /01B/02B/05B/07B |
| | 4822 121 43128 | Film 10pF \pm 10% |
| | | /10B/12B/15B/17B |

| REF. DESIG. | PART NO. | DESCRIPTION | | |
|-----------------------|----------------|-------------|--------|-----------|
| C714 | 4822 126 11125 | Ceramic | 10pF | ±5% |
| | 4822 121 43128 | Film | 10pF | ±10% |
| C715 | 4822 124 90362 | Elect | 22μF | 50V |
| C716 | 4822 124 90362 | Elect | 22μF | 50V |
| C717 | 4822 124 90366 | Elect | 220μF | 50V |
| C718 | 4822 124 90366 | Elect | 220μF | 50V |
| C719 | 4822 124 41535 | Elect | 100μF | 25V |
| | 4822 124 90365 | Elect | 220μF | 25V |
| C720 | 4822 124 41535 | Elect | 100μF | 25V |
| | 4822 124 90365 | Elect | 220μF | 25V |
| C751 | 4822 124 90354 | Elect | 100μF | 16V |
| C752 | 4822 124 90354 | Elect | 100μF | 16V |
| C753 ? C756 | 4822 121 43126 | Film | 120pF | ±5% |
| ▲ C801 | 4822 124 23458 | Elect | 4700μF | 42V |
| | 4822 124 42044 | Elect | 6800μF | 45V |
| ▲ C802 | 4822 124 23458 | Elect | 4700μF | 42V |
| | 4822 124 42044 | Elect | 6800μF | 45V |
| C803 | 4822 124 22273 | Elect | 0.47μF | 50V |
| C804 | 4822 122 32486 | Ceramic | 0.01μF | +80% -20% |
| C805 | 4822 124 41535 | Elect | 100μF | 25V |
| C806 | 4822 124 41536 | Elect | 100μF | 35V |
| C807 | 4822 124 90355 | Elect | 100μF | 50V |
| C808 | 4822 124 90355 | Elect | 100μF | 50V |
| C809 | 4822 122 32486 | Ceramic | 0.01μF | +80% -20% |
| P701-RESISTORS | | | | |
| RN01 | 4822 111 91257 | 1KΩ | ±5% | 1/6W |
| RN02 | 4822 111 91257 | 1KΩ | ±5% | 1/6W |
| RN51 | 4822 116 60455 | 270Ω | ±5% | 2W, Metal |
| RN52 | 4822 116 60455 | 270Ω | ±5% | 2W, Metal |
| ▲ R707 | 4822 116 82608 | 680Ω | ±2% | ¼W, Fuse |
| | 4822 116 81748 | 330Ω | ±2% | ¼W, Fuse |
| ▲ R708 | 4822 116 82608 | 680Ω | ±2% | ¼W, Fuse |
| | 4822 116 81748 | 330Ω | ±2% | ¼W, Fuse |
| R713 | 4822 273 10214 | 33KΩ | ±5% | ¼W |
| R714 | 4822 273 10214 | 33KΩ | ±5% | ¼W |

| REF. DESIG. | PART NO. | DESCRIPTION | | |
|----------------------------|----------------|-------------|-------------------|-------------|
| R732 | 4822 116 60343 | 1.8KΩ | ±5% | 1W |
| ▲ R733 | 4822 116 60313 | 10Ω | ±5% | ¼W, Fusible |
| ▲ R734 | 4822 116 60313 | 10Ω | ±5% | ¼W, Fusible |
| R755 | 4822 100 11373 | 4.7KΩ | Trimming | |
| R756 | 4822 100 11373 | 4.7KΩ | Trimming | |
| R757 | 4822 111 91285 | 100Ω | ±5% | 1/6W |
| R758 | 4822 111 91285 | 100Ω | ±5% | 1/6W |
| R759 | 4822 111 91285 | 100Ω | ±5% | 1/6W |
| R760 | 4822 111 91285 | 100Ω | ±5% | 1/6W |
| R763 | 4822 116 60267 | 470Ω | ±5% | 1/6W |
| R764 | 4822 116 60267 | 470Ω | ±5% | 1/6W |
| ▲ R765 | 4822 111 91424 | 2.2Ω | ±5% | 1/6W |
| ▲ R766 | 4822 111 91424 | 2.2Ω | ±5% | 1/6W |
| R767 | 4822 116 82049 | 0.18Ωx2 | ±10% | 3W |
| R768 | 4822 116 82049 | 0.18Ωx2 | ±10% | 3W |
| R769 | 4822 116 52849 | 220Ω | ±5% | ¼W |
| R770 | 4822 116 52849 | 220Ω | ±5% | ¼W |
| R771 | 4822 111 90726 | 10Ω | ±5% | 2W |
| R772 | 4822 111 90726 | 10Ω | ±5% | 2W |
| ▲ R773 | 4822 111 91424 | 2.2Ω | ±5% | 1/6W |
| ▲ R774 | 4822 111 91424 | 2.2Ω | ±5% | 1/6W |
| ▲ R801 | 4822 116 60306 | 1Ω | ±5% | ¼W, Fusible |
| ▲ R802 | 4822 111 90731 | 47Ω | ±2% | ¼W, Fuse |
| ▲ R803 | 4822 111 60308 | 2.2Ω | ±5% | ¼W, Fusible |
| ▲ R804 | 4822 111 90731 | 47Ω | ±2% | ¼W, Fuse |
| R805 | 4822 111 91423 | 1.2KΩ | ±5% | ¼W |
| R806 | 4822 111 91423 | 1.2KΩ | ±5% | ¼W |
| ▲ R807 | 4822 113 90119 | 22Ω | ±2% | ¼W, Fuse |
| P701-SEMICONDUCTORS | | | | |
| DN01 | 4822 130 80837 | Diode | HSS81 | |
| DN02 | 4822 130 80837 | Diode | HSS81 | |
| DN03 | 4822 130 33305 | Diode | 1SS176, etc. | |
| D701 ? | 4822 130 33305 | Diode | 1SS176, etc. | |
| D704 | | | | |
| D705 | 4822 130 80273 | Zener | RD8.2JB2/MTZJ8.2C | |
| D706 | 4822 130 80322 | Zener | RD15JB1/MTZJ15B | |
| ▲ D801 | 4822 130 31007 | Diode | S4VB-20 | |
| D802 | 4822 130 33305 | Diode | 1SS176, etc. | |
| D803 | 4822 130 33305 | Diode | 1SS176, etc. | |
| D804 | 4822 130 80116 | Zener | RD24JB2/MTZJ24D | |
| D805 | 4822 130 80498 | Zener | RD16JB2/MTZJ16C | |
| ▲ D806 | 4822 130 80839 | Diode | S5688G | |
| QN01 | 4822 130 43233 | Transistor | 2SC2240(GR, BL) | |
| QN02 | 4822 130 43233 | Transistor | 2SC2240(GR, BL) | |
| QN03 | 4822 130 42951 | Transistor | 2SA970(GR, BL) | |
| QN04 | 4822 290 83312 | IC | TA7317P | |
| Q701 | 4822 130 42951 | Transistor | 2SA970(GR, BL) | |
| Q702 | 4822 130 42951 | Transistor | 2SA970(GR, BL) | |
| Q703 | 4822 130 43233 | Transistor | 2SC2240(GR, BL) | |
| Q704 | 4822 130 43233 | Transistor | 2SC2240(GR, BL) | |
| Q705 | 4822 209 83732 | IC | AN7062P | |
| Q751 | 4822 130 60526 | Transistor | 2SD1508 | |
| Q752 | 4822 130 60526 | Transistor | 2SD1508 | |
| Q757 | 4822 130 60696 | Transistor | 2SC1627(O, Y) | |
| Q758 | 4822 130 60696 | Transistor | 2SC1627(O, Y) | |
| Q759 | 4822 130 69693 | Transistor | 2SA817(O, Y) | |

| REF. DESIG. | PART NO. | DESCRIPTION |
|--|----------------|---|
| Q760 | 4822 130 60693 | Transistor 2SA817(O, Y) |
| ▲ Q761 | 4822 130 60697 | Transistor 2SC3180N(R, O) /01B/02B/05B/07B |
| ▲ Q761 | 4822 130 43305 | Transistor 2SC3181(R, O) /10B/12B/15B/17B |
| ▲ Q762 | 4822 130 60697 | Transistor 2SC3180N(R, O) /01B/02B/05B/07B |
| ▲ Q762 | 4822 130 43305 | Transistor 2SC3181(R, O) /10B/12B/15B/17B |
| ▲ Q763 | 4822 130 60694 | Transistor 2SA1263N(R, O) /01B/02B/05B/07B |
| ▲ Q763 | 4822 130 43018 | Transistor 2SA1264(R, O) /10B/12B/15B/17B |
| ▲ Q764 | 4822 130 60694 | Transistor 2SA1263N(R, O) /01B/02B/05B/07B |
| ▲ Q764 | 4822 130 43018 | Transistor 2SA1264(R, O) /10B/12B/15B/17B |
| Q801 | 4822 130 61179 | Transistor 2SD2037(E, F) |
| Q802 | 4822 130 61176 | Transistor 2SB1357(E, F) |
| P701-MISCELLANEOUS | | |
| JW51 | 4822 290 81363 | Terminal, Speaker /01B/05B/07B |
| | 4822 290 81373 | Terminal, Speaker /02B |
| | 4822 290 60837 | Terminal, Speaker /10B/15B/17B |
| | 4822 290 60841 | Terminal, Speaker /12B |
| JW52 | 4822 290 81364 | Terminal, Speaker /01B/05B/07B |
| | 4822 290 81373 | Terminal, Speaker /02B |
| | 4822 290 60836 | Terminal, Speaker /10B/15B/17B |
| | 4822 290 60839 | Terminal, Speaker /12B |
| LN01 | 4822 280 20197 | Relay, DH2SU |
| L751 | 4822 157 51739 | Coil, Speaker |
| L752 | 4822 157 51739 | Coil, Speaker |
| P901-POWER SWITCH CIRCUIT BOARD | | |
| ▲ F902 | 4822 070 31002 | Fuse 1A 250V /02B/05B/07B/10B/12B/15B/17B |
| ▲ G901 | 4822 121 43732 | Film Cap. 0.01μF ±20% /01B/02B/07B/10B/12B/17B |
| ▲ G902 | 4822 122 33276 | Ceramic Cap. 0.01μF ±20% /05B/15B |
| ▲ J903 | 4822 264 30313 | Jack, AC Outlet /01B |
| ▲ S901 | 4822 276 11654 | Push Switch, Power |

NOTE ON SAFETY:

Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ▲. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.